

FIG. 1 Current - volt characteristics of weaklink JJ device

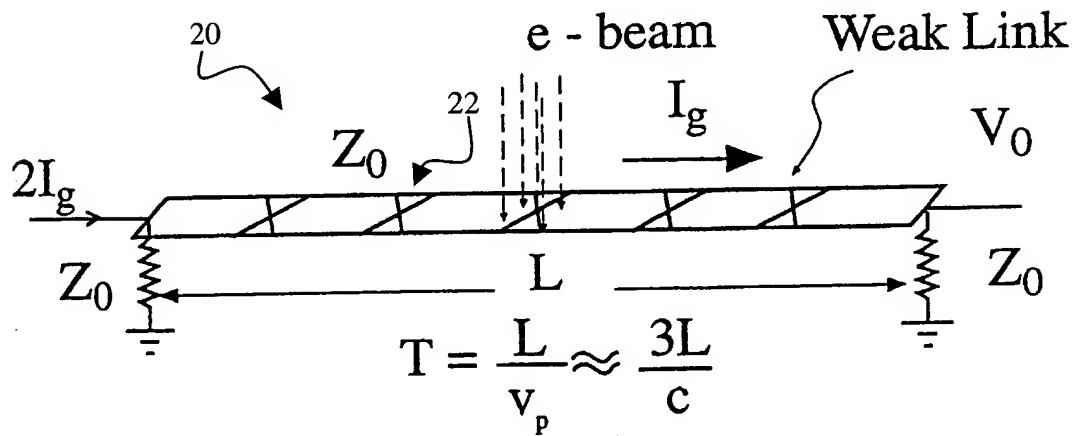


FIG. 2 e-beam excited dispersionless HTC superconducting line matched at both ends and contains weak links in series

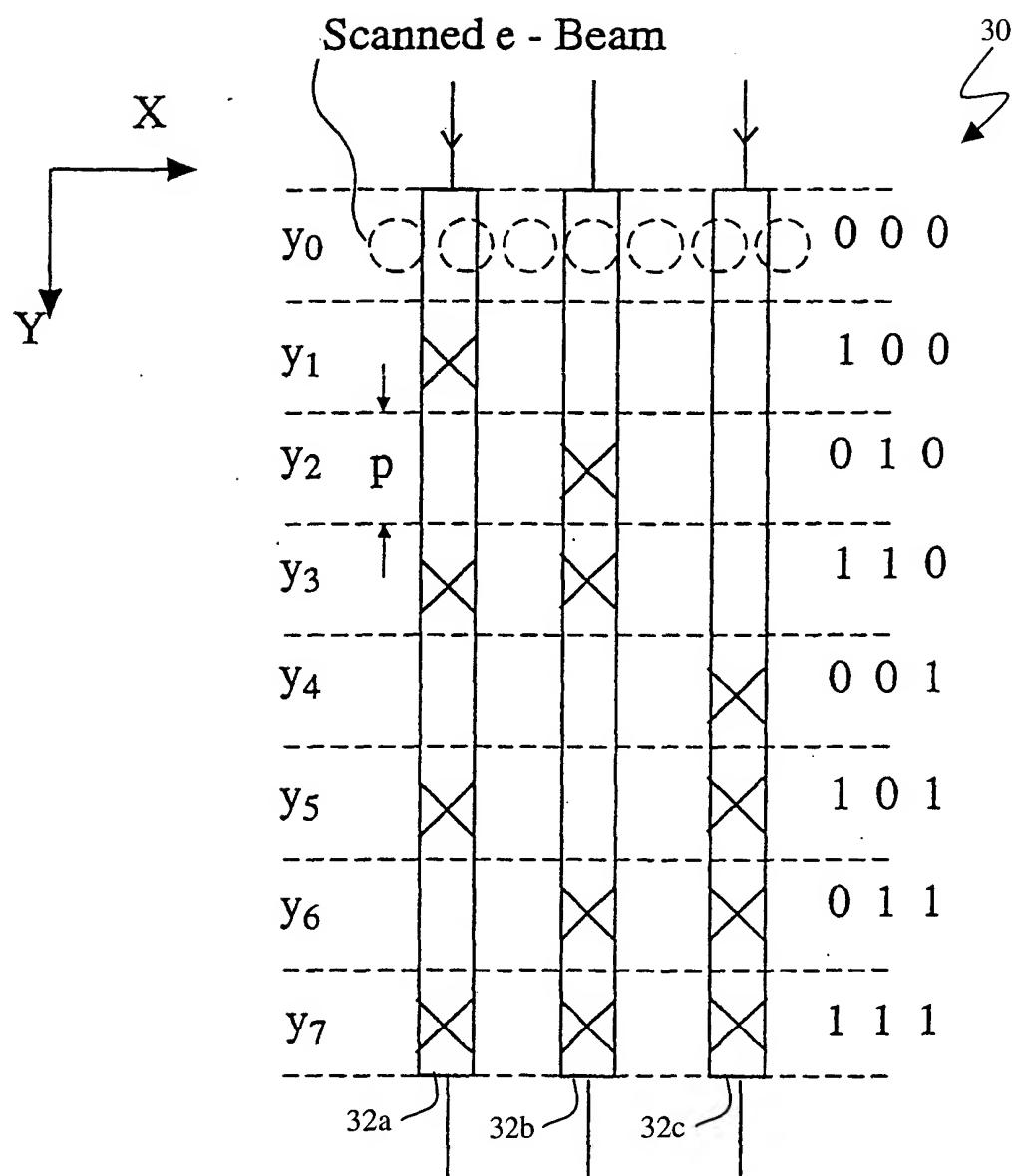


FIG. 3 3-bit e-beam excited superconducting ADC

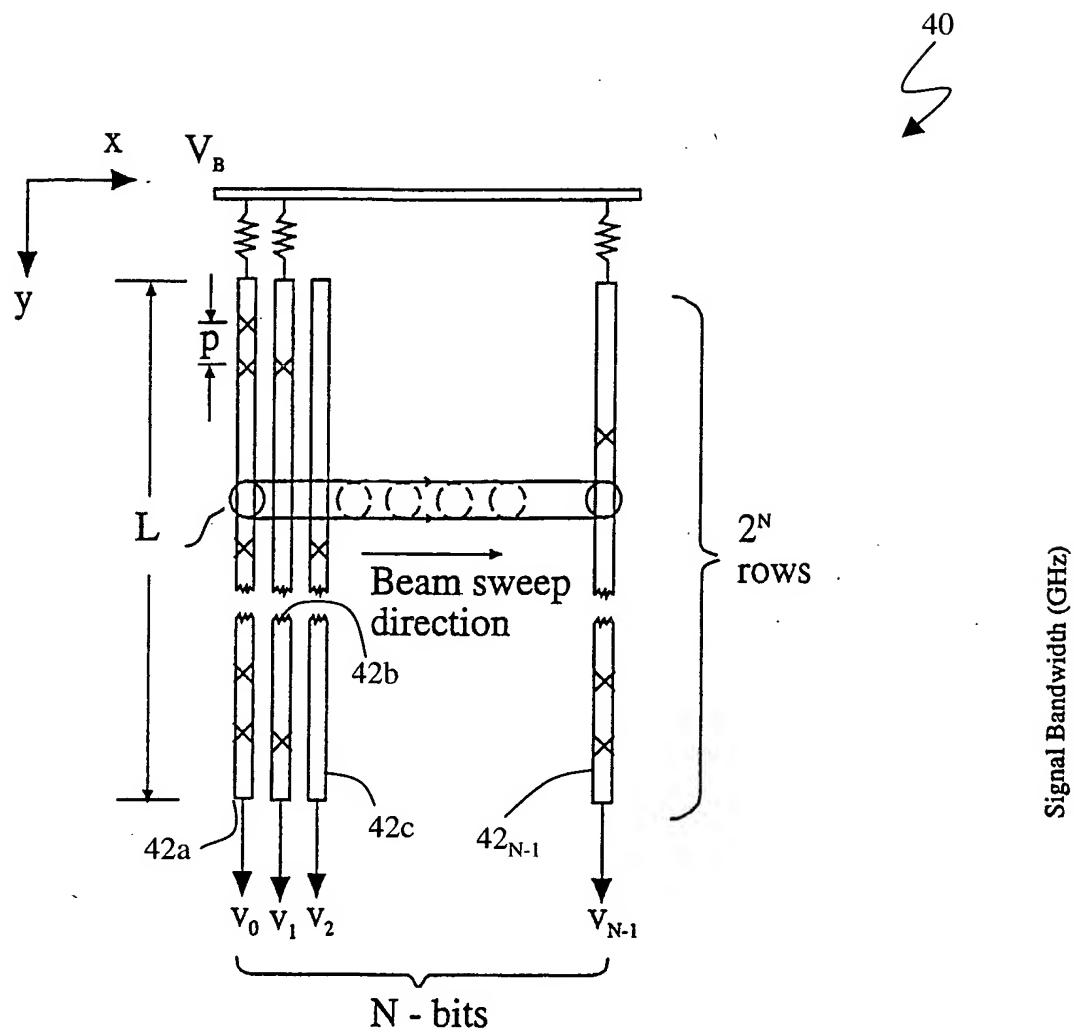
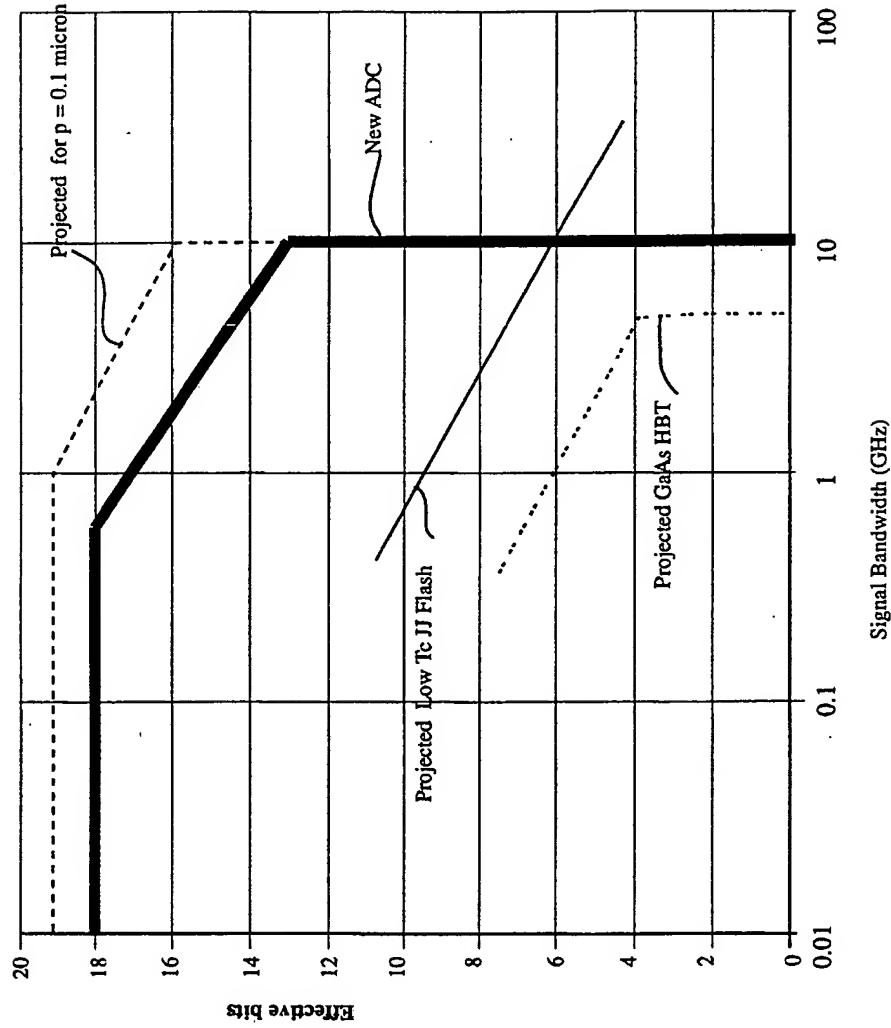


FIG. 4 *N-bit e-beam excited superconducting ADC*

Signal Bandwidth (GHz)

Fig. 5 Performance of proposed e-beam ADC compared with other technologies



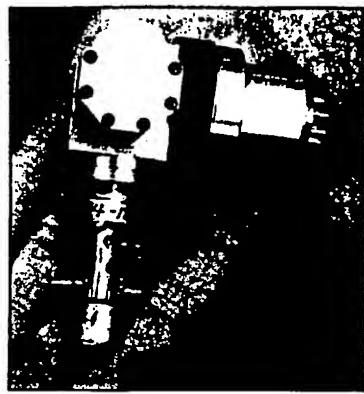


FIG. 6 - Miniature Stirling closed-cycle refrigerator built by Inframetrics Inc., N. Billerica, MA

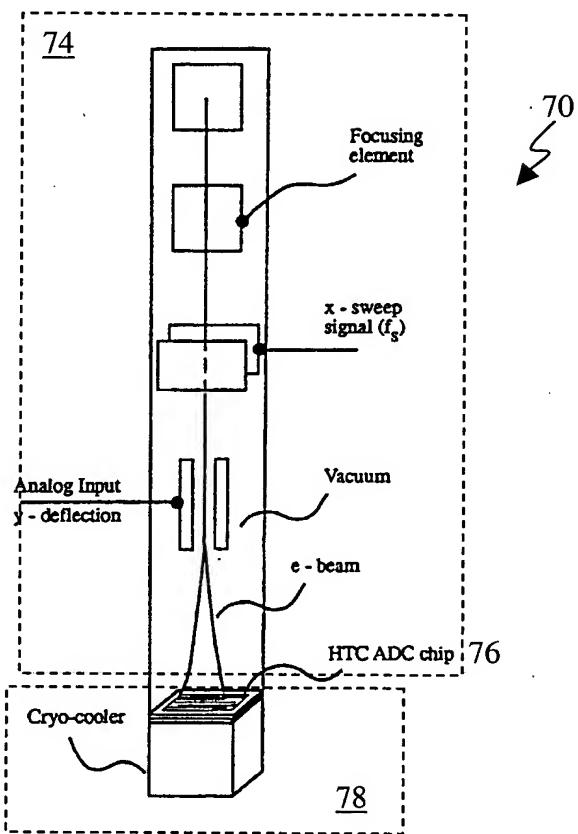


FIG. 7 Schematic diagram of ultra-high performance ADC system